Performance-based Occupational Strength Testing for Candidate Navy Pilots/Naval Flight Officers

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The Secretary of Defense has directed the military services to permit women to fly aircraft in combat missions. Anthropometric standards exist to ensure that the individuals entering naval aviation fit the cockpits and can reach the controls of the aircraft to which they have been assigned.

However, no strength standards currently exist to assure that individuals can, in fact, actuate cockpit foot and hand controls. On average, the strength of females is about 50-60% that of males. The ability to successfully operate aircraft in normal and emergency situations is clearly crucial to completing mission requirements, as well as to the safety of the personnel and the aircraft.
This study will:

(1)Identify selected strength-critical tasks in the proposed Joint Primary Aircraft Trainer System (JPATS),

(2) replicate those tasks on the NAMRL strength screening device, and

(3) develop a strength enhancement program that will enable individuals to meet or exceed the strength standards (force requirements) implicit in the JPATS MIL-SPEC.

Upon completing this research, the strength screening device will be available to screen for strength-critical tasks in all aircraft currently in the services' inventories.